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SMOKE SIGNALS

Air Pollution Control News from Humboldt - Trinity & Del Norte

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Volume 9, No. 1 First Quarter - 1977
5600 S. Broadway; Eureka, CA 95501 (707) 443-3091

BASIN COUNCIL REVISES REGULATIONS

The Coordinating Council of the North Coast Air Basin met in San Francisco on January 21, 1977, and adopted six additional federal new source performance standards and several minor modifications in the districts new source review procedures. New in-stack monitoring requirements were also adopted in accordance with state and federal recommendations. The next meeting of the Basin Council is scheduled to be held at the Benbow Inn in Garberville on April 22, 1977.

BURN DAYS EXPLAINED

The Humboldt County Air Pollution Control District receives frequent inquiries from the general public and the news media regarding the origin of the daily burn, no-burn forecasts which are heard over local radio stations and seen on television weather reports. These burning forecasts originate from the meteorology section of the California Air Resources Board in Sacramento and are released at 3:00 p.m. each day covering the next following day's burning conditions. This program was started in the North Coast Air Basin in 1972 in order to control agricultural burning and limit the use of open outdoor fires to those days which provide the best dispersion of air pollutants. Still days with low atmospheric inversion conditions or days of heavy overcast do not allow good dispersion of pollutants and therefore are classified as no-burn days. Longer range forecasts are also made available for special large range improvement or forest management burns that are conducted in remote rural areas. Sometimes these rural burns will be allowed while burning conditions are not so favorable in the more populated areas of the North Coast Air Basin counties. The burn, no-burn forecasts are available 24 hours a day by calling (707) 443-3091. A recording service in operation after 5:00 p.m. at this number gives the burning forecast for the following day. Persons wishing to obtain the forecast direct from the Air Resources in Sacramento may do so by calling (916) 446-6717.

SULFATE STUDIES NEGATIVE

The staff of the Humboldt County Air Pollution Control District has recently completed a study of the concentration of airborne sulfate particulate matter in various locations throughout the County. Values found ranged from less than 1.0 to 12.5 micrograms per cubic meter with the highest value being recorded at the Trinidad sampling site. Most of the sulfate particulate matter found in Humboldt County is suspected to be attributed to marine origin, whereas much of the sulfate found in urban areas is generated by automobile emissions. The State standard for maximum suspended sulfate concentrations is 25 micrograms per cubic meter, more than twice the highest value found in our recent studies.

AIR POLLUTION VIOLATIONS

Thirteen violation notices were issued in Humboldt, Trinity, and Del Norte Counties during the first quarter of 1977, mostly for tepee burners whose operations had deteriorated during the past winter. The recurrent violations by Eel River Sawmills at Redcrest were referred to the District Attorney's Office. The violation by Sierra Pacific Industries at Hayfork was the first to be referred to the Trinity County District Attorney's Office.

Date	Location	Source	Violation
2/09/77	Eel River Sawmill-Redcrest	Tepee Burner	Rl. 40-Visual Emissions
2/10/77	Twin Harbors Lbr. Co-Dinsmore	Tepee Burner	Rl. 40-Visual Emissions
2/10/77	L. P. Corporation-Dinsmore	Tepee Burner	Rl. 40-Visual Emissions
2/11/77	McIntosh Lbr. Co.-Blue Lake	Tepee Burner	Rl. 40-Visual Emissions
2/17/77	Sierra Pacific-Hayfork	Tepee Burner	Rl. 40-Visual Emissions
2/24/77	Eel River Sawmill-Redcrest	Tepee Burner	Rl. 40-Visual Emissions
2/25/77	Cal Pacific Lbr.-Orick	Tepee Burner	Rl. 40-Visual Emissions
3/10/77	Kent Stromberg-Arcata	Open Fires	Reg. 2- Open Burning
3/14/77	L. P. Corporation-Samoa	Recovery Furnace	Rl. 40-Visual Emissions
3/16/77	M & J Lbr. Co.-Myers Flat	Tepee Burner	Rl. 40-Visual Emissions
3/16/77	Eel River Sawmill-Redcrest	Tepee Burner	Rl. 40-Visual Emissions
3/17/77	Cal Pacific Lbr.- Orick	Tepee Burner	Rl. 40-Visual Emissions
3/31/77	Simpson Timber Co.-Korbel	Tepee Burner	Rl. 40-Visual Emissions

COMPLAINT SUMMARY

Pulp mill odor complaints rose in January and February following the record low levels of the prior quarter. The complaint increases were largely attribured to the unseasonally dry weather and high frequency of inversion conditions experienced this past winter.

	January	February	March
Pulp mill odor	9	30	6
Smoke	10	3	5
Fallout	1	0	3
Miscellaneous	1	6	1

SUSPENDED PARTICULATE MATTER
(Micrograms Per Cubic Meter)*

COUNTY	HUMBOLDT				DEL NORTE	TRINITY
DATE	Eureka Health	Eureka Dept. Trans	Arcata Fire Dept.	Blue Lake	Crescent City	Weaverville
Jan. 1	38	22	31	24		
7	123	146	112	80	-	47
13	98	90	80	74		
19	145	142	110	134	73	139
25	97	92	96	116		
31	60	75	53	48	51	59
Feb. 6	81	85	55	48		
12	52	50	36	47	113	45
18	100	82	72	91		
24	44	46	37	37	35	38
Mar. 2	47	42	41	40		
8	56	65	59	44	52	39
14	47	49	38	40		
20	39	44	37	63	30	-
26	56	51	36	39		

*The California maximum allowable value is 100 micrograms per cubic meter for a 24 hour sample.

AIR QUALITY SUMMARY - EUREKA

	JANUARY				FEBRUARY				MARCH			
Date	TRS#1 High Hr. Average ppb	CO High Hr. Average ppm	Particulates #2 High 2-hr. Interval D.T.	Date	TRS#1 High Hr. Average ppb	CO High Hr. Average ppm	Particulates #2 High 2-hr. Interval D.T.	Date	TRS#1 High Hr. Average ppb	CO High Hr. Average ppm	Particulates #2 High 2-hr. Interval D.T.
1	0	1	.3	1	0	6	.9	1	1	3	.6
2	0	2	1.1	2	0	8	1.4	2	0	3	.4
3	-	2	.9	3	0	10	1.4	3	2	1	.4
4	-	9	1.5	4	2	9	1.9	4	2	4	.8
5	-	9	1.6	5	0	2	.5	5	0	3	.6
6	-	10	1.9	6	1	-	.9	6	0	1	.3
7	-	15	2.1	7	1	-	1.2	7	0	2	.2
8	-	7	2.2	8	-	-	.3	8	0	2	.3
9	-	4	1.0	9	0	-	.7	9	2	2	.3
10	-	2	.7	10	0	1	.5	10	4	5	.8
11	-	4	1.0	11	4	3	.6	11	0	4	.5
12	-	8	1.3	12	1	1	.4	12	0	0	.6
13	-	6	-	13	2	1	.2	13	0	1	.4
14	0	5	-	14	6	2	.7	14	0	3	.6
15	1	6	-	15	4	4	.9	15	0	1	.4
16	3	6	.3	16	3	2	.8	16	2	2	.6
17	3	12	.4	17	2	2	.4	17	4	2	.3
18	0	6	1.6	18	2	5	.8	18	0	2	.4
19	0	11	1.9	19	0	3	.7	19	2	0	.3
20	0	10	1.8	20	0	3	.5	20	2	1	-
21	4	7	1.4	21	0	1	.4	21	5	1	-
22	1	6	.9	22	0	1	.5	22	3	1	-
23	4	7	2.0	23	0	1	.2	23	0	1	-
24	3	6	1.3	24	2	4	1.4	24	3	1	.3
25	1	6	1.0	25	2	6	1.1	25	2	1	.2
26	0	10	1.9	26	-	2	.4	26	1	1	.3
27	2	14	1.6	27	0	1	.3	27	1	1	.2
28	0	4	1.6	28	1	1	.4	28	1	1	.3
29	1	3	1.0	29				29	2	1	.2
30	0	3	.6	30				30	2	2	.4
31	0	10	1.3	31				31	2	2	.5
Ave.	1.2	6.8	1.29	Ave.	1.3	3.3	.73	Ave	1.4	1.8	.41

#1 Total Reduced Sulfur
#2 COH units per 1,000 lineal feet of air sampled
D.T. - Eureka Department of Transportation

HUMBOLDT COUNTY
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Volume 9, No. 2 Second Quarter - 1977
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HUMBOLDT/DEL NORTE VARIANCES GRANTED

At its June 2, 1977, meeting, the Hearing Board of the Humboldt County Air Pollution Control District issued three new variances for eliminating or correcting air pollution control systems. During the next few months, the Louisiana-Pacific pulp mill will be undertaking a major overhaul of its recovery furnace electrostatic precipitators in order to improve their collection efficiency. A variance was granted for three 20-day maintenance periods while completing the repairs. The second variance provided for a period until December 31, 1977, while two dryers at the Louisiana-Pacific particleboard plant in Arcata are retrofitted with new wet scrubbers designed to decrease smoke emissions. The M and J Lumber Company was granted a variance for continued operation of a tepee burner at Myers Flat until March 15, 1978, while installing new wood shredding equipment.

The Del Norte Hearing Board granted a variance to the Simonson Lumber Company for continued operation of a tepee burner at their Smith River sawmill until July 20, 1977, while developing a plan leading to eventual elimination of the burner.

AIR QUALITY SUMMARY

Commencing with this issue of the quarterly bulletin, we will be using a new graphical display of air monitoring data as a replacement for the daily summary sheets which have appeared in prior issues. We hope that these new graphs will give a more clear comparison of past and present air quality data and display some of the typical seasonal characteristics that affect air quality measurements in conjunction with improvements in pollution control systems. Anyone wishing more detailed listings of recent monitoring data may contact the air pollution control office at 443-3091.

BASIN REGULATIONS REVISED

The North Coast Air Basin Control Council met at the Benbow Inn on April 22, 1977, and adopted an annual revision proposal for changes in Regulations 1 and 3 of the uniform basinwide regulations. The major modifications included in the new regulations were the finalization of emission limitations for geothermal operations and addition of six federal new source performance standards. These changes have been approved by the individual county districts and are being reprinted for distribution. The next meeting of the Basin Control Council is scheduled to be held at the Holiday Inn in Santa Rosa on July 22, 1977, at which time the first draft of the 1977 Basin Control Plan will be presented. This plan, which is updated every two years, outlines historical developments of air pollution control on the North Coast and gives trend details on air monitoring, emission statistics and control strategy.

AIR POLLUTION VIOLATIONS

Only two violation notices were issued in Humboldt County during the second quarter of 1977, down sharply from the thirteen notices issued during the first quarter. Most of this reduction was caused by generally improved tepee burner operations during the warmer spring weather.

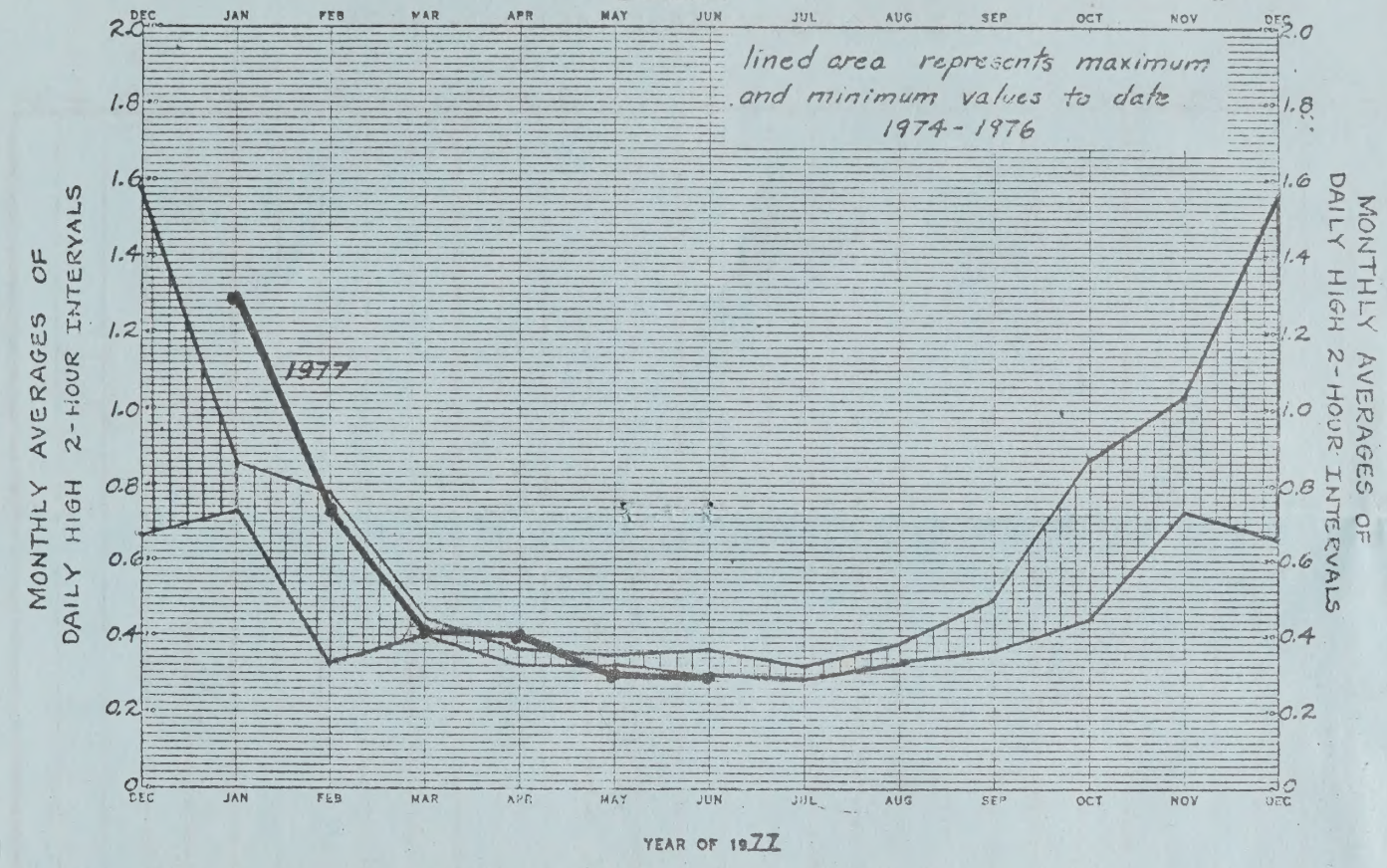
Date	Location	Source	Violation
6/07/77	Willow Creek Inc. - W. C.	Tepee Burner	Rule 410 - Visual Emissions
6/27/77	Crown Redwood - Fortuna	Sawmill	Rule 430 - Fugitive Dust

COMPLAINT SUMMARY

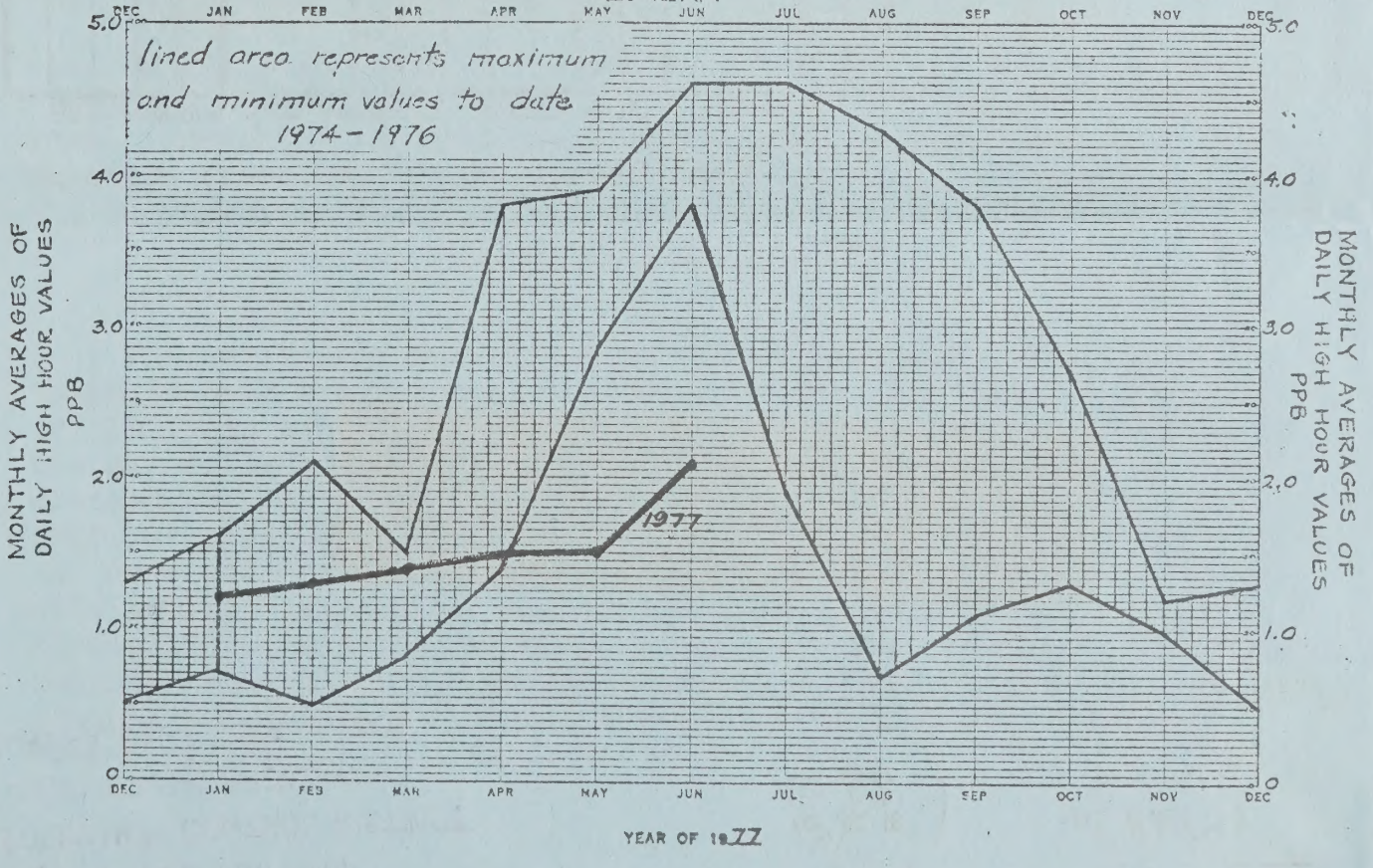
Fallout and pulp mill odor complaints, which were trending downward with the increased atmospheric ventilation of early spring breezes, increased greatly on the last four days of June following plant upsets at Crown Redwood Company in Fortuna (fallout) and at the Louisiana-Pacific pulp mill.

	April	May	June
Pulp mill odor	16	11	28
Smoke	4	4	12
Fallout	0	1	9
Miscellaneous	1	3	1

SUSPENDED PARTICULATE (BY AISI METHOD)
NORTH COAST AIR BASIN
EUREKA


lined area represents maximum and minimum values to date 1974-1976
1977
MONTHLY AVERAGES OF DAILY HIGH 2-HOUR INTERVALS
MONTHLY AVERAGES OF DAILY HIGH 2-HOUR INTERVALS
DEC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0
YEAR OF 1977

TOTAL REDUCED SULFUR (TRS)
NORTH COAST AIR BASIN
EUREKA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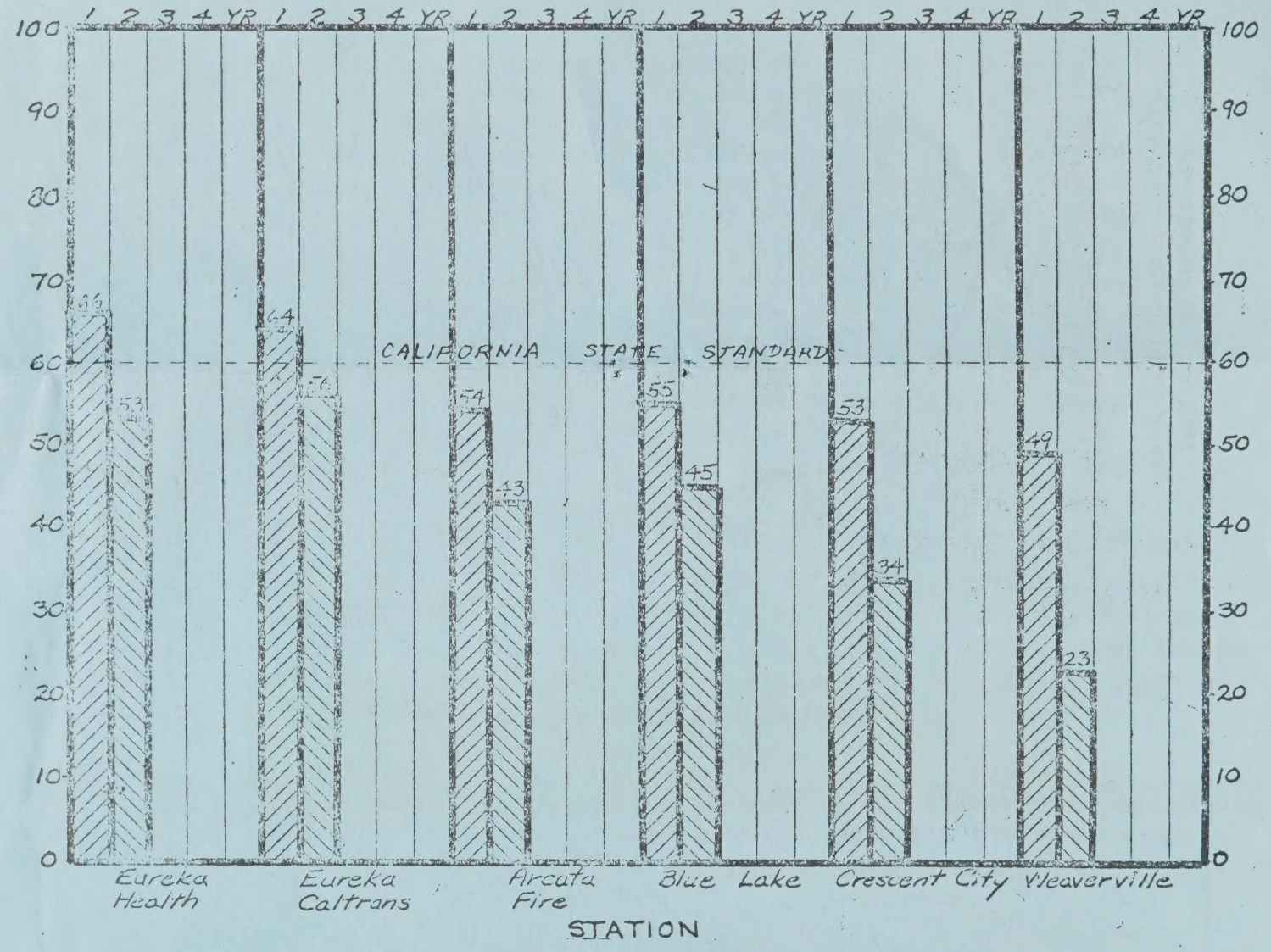
0 1.0 2.0 3.0 4.0 5.0
YEAR OF 1977

SUSPENDED PARTICULATE (BY HI-VOL)
QUARTERLY GEOMETRIC MEANS - 1977



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Volume 9, No. 3 Third Quarter - 1977
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BASIN PLAN UPDATED

The Air Pollution Control Council of the North Coast Air Basin held their quarterly meeting in Fort Bragg on October 7, 1977, and adopted an updated basinwide control plan. This revised plan provides new data on air pollution control program activities in all five north coast counties. Major additions to the plan are the new kraft pulp mill odor trend data and the chronological review of hydrogen sulfide emissions from the geysers geothermal area in Sonoma County. All monitoring and emission inventory data have been brought up to date covering the period since the plan was last revised in October, 1975.

The control plan will now be submitted to the Air Resources Board for their inclusion in the overall California State Implementation Plan. Copies of the 1977 Control Plan may be purchased from the Humboldt County APCD for $2.00.

CAPCOA OFFICERS ELECTED

The California Air Pollution Control Officers Association (CAPCOA) held their annual meeting at South Lake Tahoe on October 12, 1977, in conjunction with the West Coast Section meeting of the Air Pollution Control Association. The new slate of officers elected for the coming year include: Jan Bush, Ventura County APCD, as president; Jim Koslow, Yolo-Solano APCD, as vice-president; and Jeff Anderson, serving for Jess Grisham, Siskiyou County APCD, will remain for another year as Secretary-Treasurer. The main thrust of the meeting centered on the need for increased subvention funding and the clarification of respective ARB-local district responsibilities. A select committee is presently meeting with ARB toward resolution of this later problem.

SIMPSON BOILER COMPLIANCE ACHIEVED

The Simpson Timber Company has completed installation and startup of a new wet scrubber for control of particulate emissions from a wood-fired boiler at their Mad River Plywood Plant. The scrubber is a low pressure type collection unit of proprietary design which was licensed to Simpson by the Louisiana-Pacific Corporation. The use of this new wet scrubber has reduced particulate emissions from the boiler by approximately 90 percent and eliminated a major source of fly ash and fallout in the north Arcata area.

AIR POLLUTION VIOLATIONS

Eight violation notices were issued in Humboldt, Trinity and Del Norte Counties during the third quarter of 1977 for a wide variety of regulation infractions.

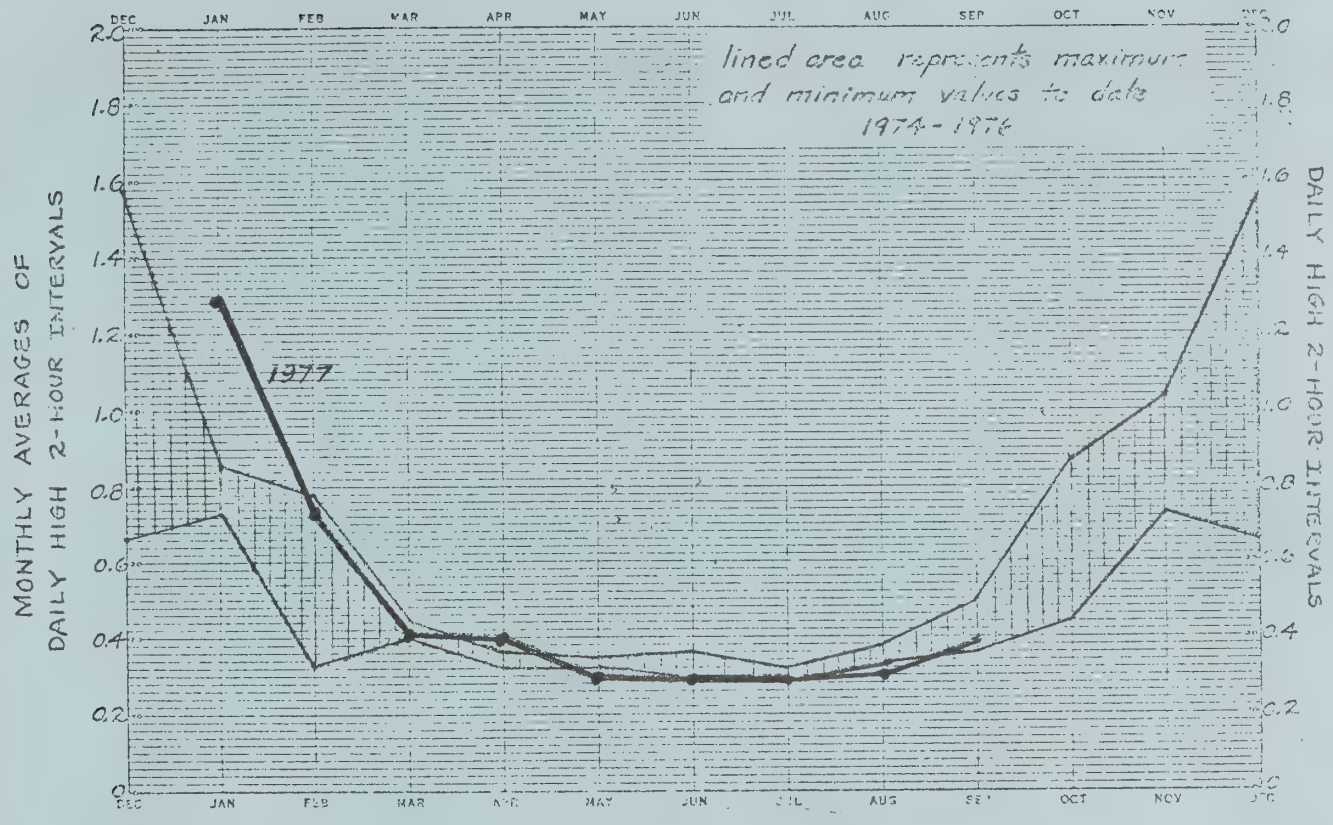
Date	Location	Source	Violation
7/11/77	L. P. Corp.-Samoa	Digester Blow Tank	TRS Emissions
7/13/77	Willow Creek Inc.-W.C.	Tepee Burner	Visual Emissions
8/05/77	W. J. Giggs	Open Fires	Reg. 2-Open Burning
8/23/77	Del Norte Box-Arcata	Tepee Burner	Visual Emissions
9/06/77	SWF Plywood Co.-Burnt Ranch	Power Boilers	Visual Emissions
9/07/77	L. P. Corp.-Arcata	Cyclones	Permit Conditions
9/30/77	L. P. Corp.-Big Lagoon	Tepee Burner	Visual Emissions
9/30/77	Cal Pacific-Orick	Tepee Burner	Visual Emissions

COMPLAINT SUMMARY

All complaint categories dropped to normal low summer levels with the increased ventilation of the prevailing northwest breezes.

	July	August	September
Pulp Mill Odor	12	12	5
Smoke	5	6	2
Fallout	2	0	1
Miscellaneous	4	2	2

SUSPENDED PARTICULATE (BY AISI METHOD)
NORTH COAST AIR BASIN
EUREKA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YEAR OF 19ZZ

TOTAL REDUCED SULFUR (TRS)
NORTH COAST AIR BASIN
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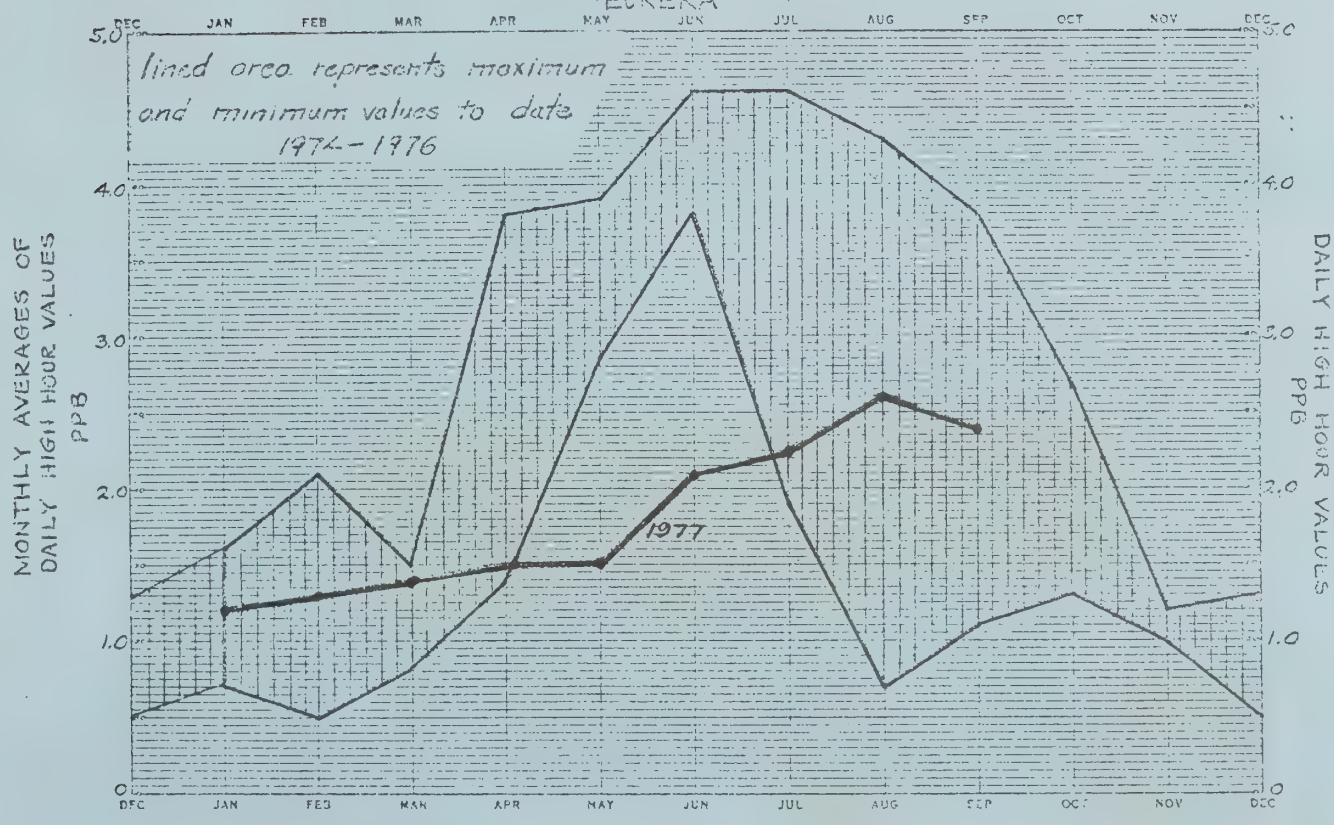
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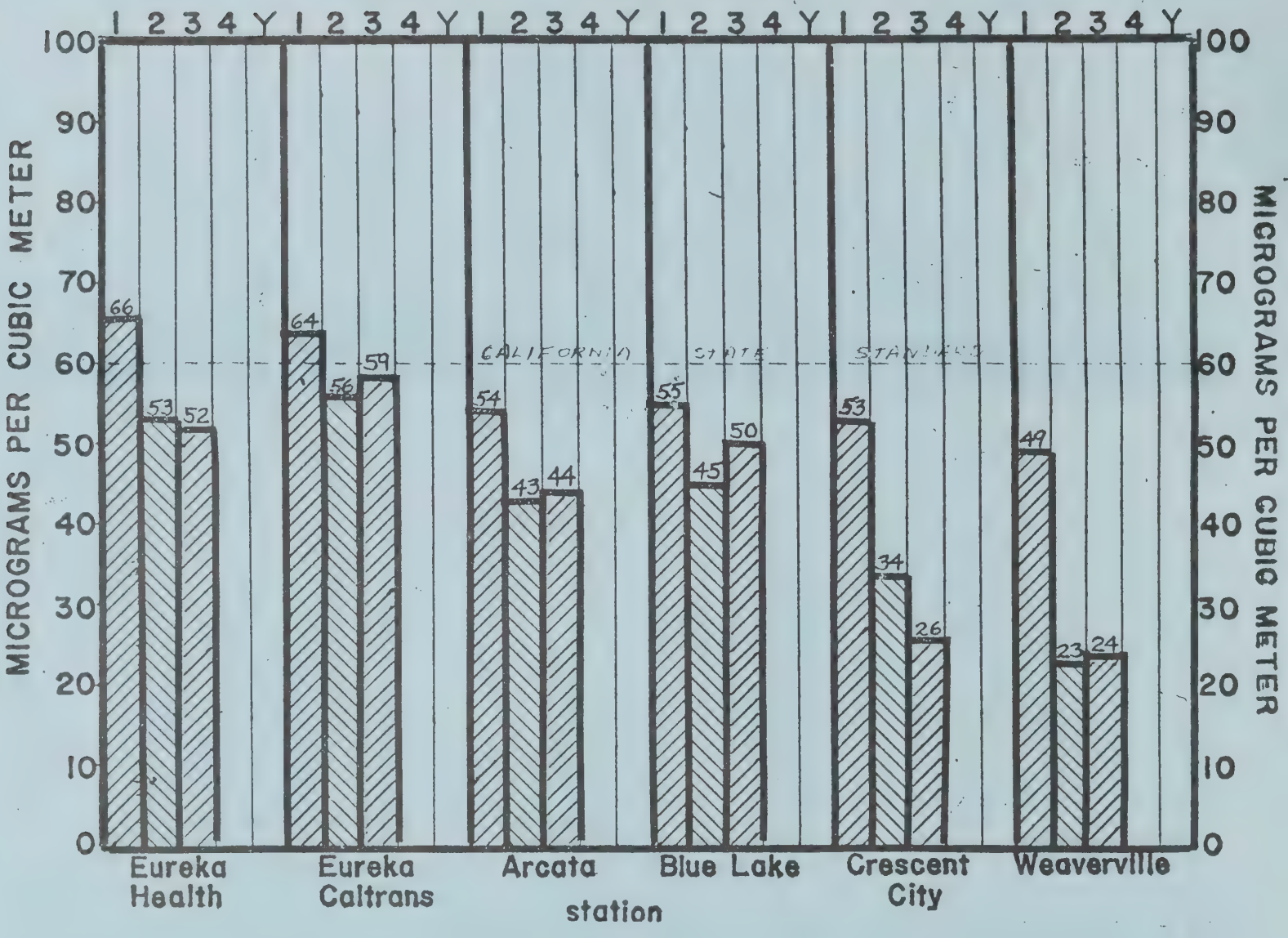
SUSPENDED PARTICULATE (BY HI-VOL)
QUARTERLY GEOMETRIC MEANS-1977



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Volume 9, No. 4 Fourth Quarter - 1977
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NATIONAL AIR STANDARDS MET

National primary and secondary ambient air quality standards were achieved at all monitoring locations in Humboldt, Del Norte and Trinity Counties during 1977. The highest suspended particulate measurements were made at the Eureka Cal-Trans office where an annual geometric mean of 59.8 micrograms per cubic meter was obtained, only 0.2 units below the state and federal annual standard of 60 micrograms per cubic meter. The national 24-hour standard of 150 micrograms per cubic meter was attained at the Cal-Trans sample site, but the limiting state 24-hour standard of 100 was exceeded on 7 of the 60 days when samples were taken at that location. Achievement of the standards was aided by a return to more normal weather patterns during the fall of 1977. Particulate emission decreases from industrial sources in the Humboldt Bay area are expected to result in a further drop in suspended particulate levels in 1978 to approximately 56 micrograms per cubic meter.

One anomaly of the past year was the 24-hour value of 583 micrograms per cubic meter recorded in Weaverville on December 21, 1977. This is the highest value obtained on the North Coast since measurements were started in 1969. The unusually high value is suspected to have been caused by particulate matter blown in from the Sacramento Valley by gale winds which caused major damage throughout the state.

BASIN COUNCIL MEETING

The next quarterly meeting of the Air Pollution Control Council of the North Coast Air Basin will be held at the Los Robles Motel in Santa Rosa at 11:00 a.m. on February 2, 1978. The Council will consider adoption of revised emergency breakdown and variance procedures and will review the status of several other ARB sponsored programs.

COMPLAINT SUMMARY

Pulp mill odor complaints were reduced to only five recorded during the past three months, while smoke complaints were abnormally high because of late season slash burning of forest debris.

	October	November	December
Pulp Mill Odor	3	1	1
Smoke	8	21	0
Fallout	1	1	1
Miscellaneous	4	2	0

AIR POLLUTION VIOLATIONS

Seven violation notices were issued in Humboldt County during the last quarter of 1977. Several notices were for violation of permit procedures and failure to make proper breakdown notifications.

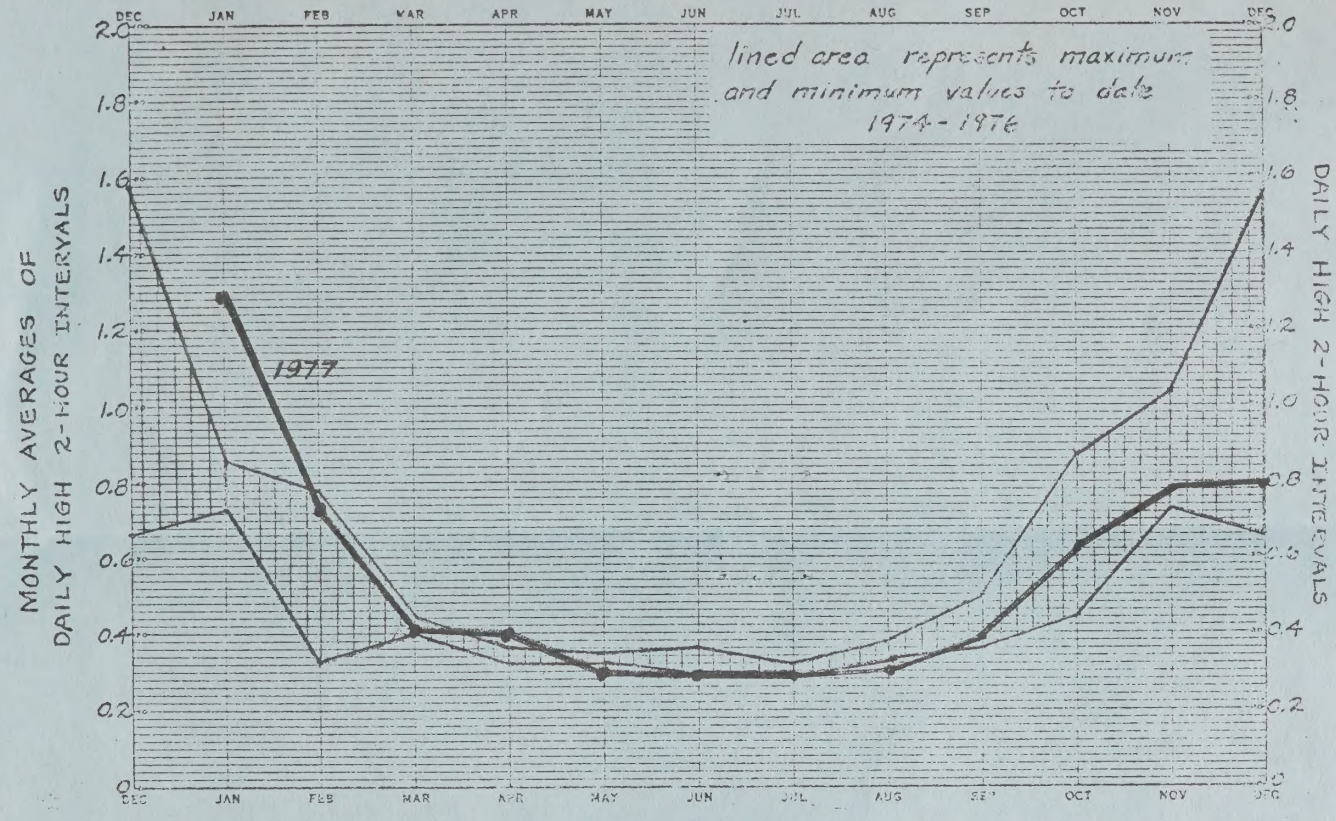
DATE	LOCATION	SOURCE	VIOLATION
10/20/77	Brookings Plywood-Salyer	Tepee Burner	Visual Emissions
11/07/77	L. P. Corp. - Arcata	Cyclones	No Permit
11/14/77	Crown Simpson-Fairhaven	Rec. Furnace	Breakdown Notice
11/15/77	L. P. Corp. - Samoa	Cyclones	Permit Conditions
11/28/77	Carlotta Lumber-Carlotta	Tepee Burner	Visual Emissions
12/12/77	Charles Nelson	Open Fires	Reg. 2-Open Burning
12/20/77	L. P. Corp. - Samoa	Power Boiler	Breakdown Notice

SUMMARY OF SUSPENDED PARTICULATES BY HI-VOL IN NORTH COAST AIR BASIN

(Micrograms per Cubic Meter)

	1973	1974	1975	1976	1977
DEL NORTE COUNTY					
Crescent City	48	52	48	40	44
HUMBOLDT COUNTY					
Eureka - Health Dept.	49	54	53	56	57
Eureka - Cal-Trans	56	62	60	62	60
Arcata - Fire Dept.	47	61	48	49	47
Blue Lake - Post Office	43	-	-	-	49
TRINITY COUNTY					
Weaverville	-	30	31	31	34
MENDOCINO COUNTY					
Ukiah - Fire Dept.	-	87	63	68	59
Willits - City Hall	69	95	59	71	64
Fort Bragg - Health Dept.	84	102	96	110	84
Calpella - Superette	88	102	62	62	71
SONOMA COUNTY					
Healdsburg	57	52	52	49	46
Cloverdale	46	43	43	40	34

SUSPENDED PARTICULATE (BY AISI METHOD)
NORTH COAST AIR BASIN
EUREKA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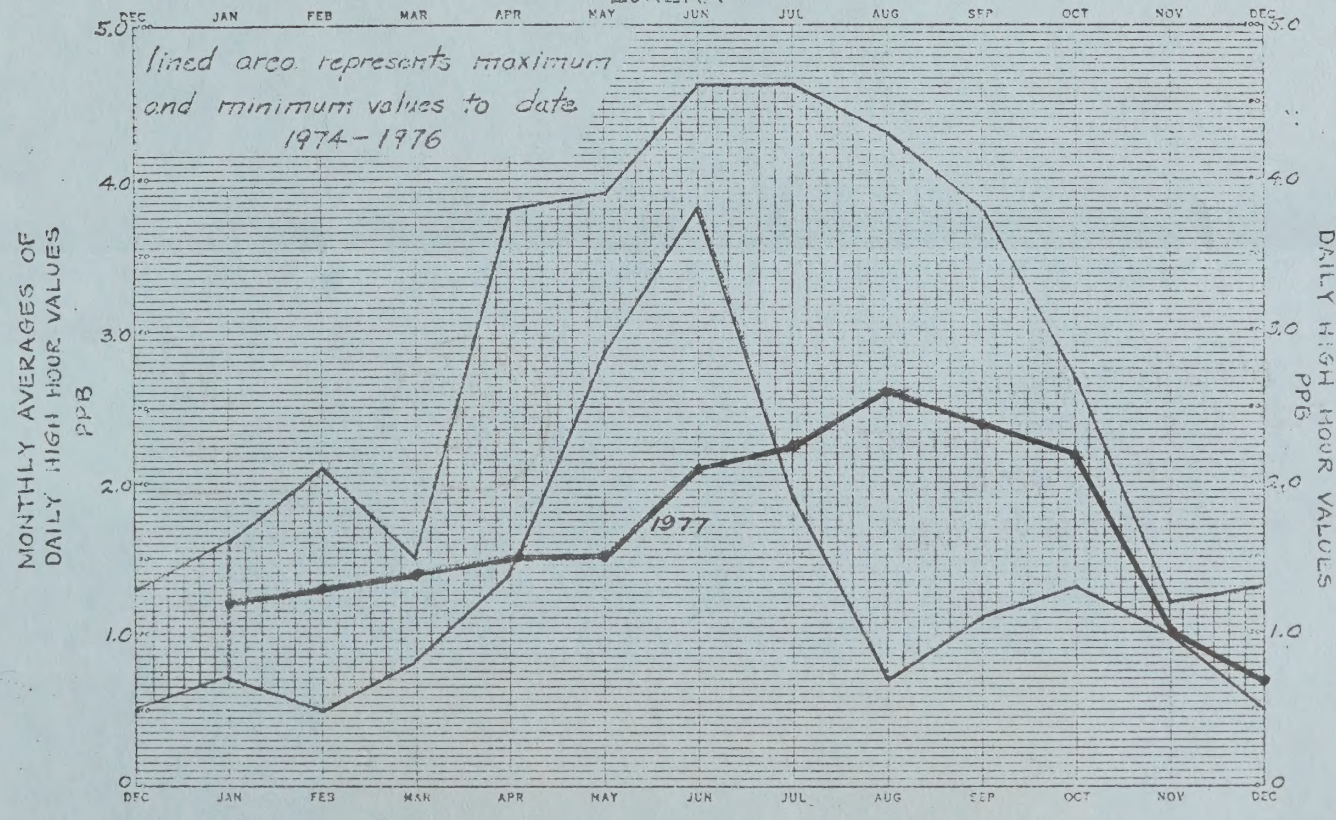
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